Certificate

Quality-Assurance System

for Manufacturer of Materials

acc. to Directive 2014/68/EU

Certificate no.: **01 202 E/Q-02 6904**

Name and address of the manufacturer:

Sidenor Aceros Especiales, S.L.U.
Bº Ugarte, s/n
E - 48970 Basauri BIZKAIA

Herewith we certify that the material manufacturer has established and applies a Quality Management System. The system was audited according to the European Directive 2014/68/EU, Annex I, Par. 4.3, with regard to the materials as listed in the scope of approval.

Tested acc. to Directive 2014/68/EU: **QM System acc. to EN 764-5, article 4.2 and AD 2000-Merkblatt W0**

Audit report no.: E/Q-02 6904

Area of validity: MANUFACTURER OF STEEL ROLLED (BARS) AND FORGED BARS IN MATERIAL: CARBON, STEEL, ALLOY STEEL, AND STAINLESS STEEL FROM 19 mm Ø TO 1500mmØ, see annex to certificate

Manufacturing plant: Bº Ugarte, s/n, E - 48970 Basauri BIZKAIA
Portal de Gamarra, 22, E - 01013 Vitoria (Alava)
Paseo de Alejandro Calonge, s/n, E - 39200 Reinosa (Cantabria)
Planta de Azkoitia, E - 20720 Azkoitia (Gipuzkoa)

Valid until: May 31, 2023

Cologne, April 18, 2020

Dipl.-Ing. (FH) Vera Ruff

TÜV Rheinland 0035 Notified Body

TÜV Rheinland Industrie Service GmbH
Notifizierte Stelle für Druckgeräte, Kennnummer: 0035
Am Grauen Stein, D-51105 Köln

E-008-D-Rev22

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TÜVRheinland®

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U** Location: E 48970 BASAURI	**PLANT BASAURI**	**E**	07.07.20 Rev.: 7	1 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Dimensions Thick-ness mm Up to	Dimensions ∅ mm from	Dimensions ∅ mm Up to	Weight max 1=t / 2=kg ⇓	Weight max 1=t / 2=kg result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU												
The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
1	X 6CrNiMoTi 17-12-2	EN 10272 1.4571	+AT	BARS	25	100					EN 10272	
	X 2CrNiMo 17-12-2	EN 10272 1.4404	+AT	BARS	25	100					EN 10272	
	X 5CrNi 18-10	EN 10272 1.4301	+AT	BARS	25	100					EN 10272	
	X 6CrNiTi 18-10	EN 10272 1.4541	+AT	BARS	25	100					EN 10272	
	X5CrNiMo 17-12-2	EN 10272 1.4401	+AT	BARS	25	100					EN 10272	
	X2CrNi18-9	EN 10272 1.4307	+AT	BARS	25	100					EN 10272	
2	25 CrMo4	EN 10269 1.7218	+S,+QT	BARS	25	100					EN 10269	
	34 CrNiMo 6	EN 10269 1.6582	+QT	BARS	25	100					EN 10269	
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	25	100					EN 10269	
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	25	100					EN 10269	
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	25	65					EN 10269	***
3	P 250 GH	EN 10273 - 1.0460	+N	BARS	25	100					EN 10273	
	16 Mo 3	EN 10273 1.5415	+QT	BARS	25	100					EN 10273	
	13 CrMo 45	EN 10273 1.7335	+QT	BARS	25	100					EN 10273	
	10 CrMo 9-10	EN 10273 1.7380	+QT	BARS	25	100					EN 10273	

Remarks

+AT = solution annealed
+AR = as rolled
+M = thermo mechanical treated
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+S = soft annealed
+SR = stress relieved
a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary
*** Over limits will need PMA

TÜVRheinland® Industrial Services 85824

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U** Location: E 48970 BASAURI	**PLANT BASAURI**	**E**	07.07.20 Rev.: 7	2 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

4	S 235J2	EN 10025.2- 1.0117	+N	BARS	25	100					AD 2000 W13	a
	S-235 JR	EN 10025.2 - 1.0038	+N	BARS	25	100					AD 2000 W13	a
	S 275 JR	EN 10025.2 - 1.0044	+N	BARS	25	100					AD 2000 W13	a
	S 275J2	EN 10025.2 - 1.0145	+N	BARS	25	100					AD 2000 W13	a
	S 355 J2	EN 10025.2 - 1.0577	+N	BARS	25	100					AD 2000 W13	a
5	P 250 GH	EN 10273 - 1.0460	+N	BARS	25	100					AD 2000 W13	a
	P 355 NH	EN 10273 1.0565	+N	BARS	25	100					AD 2000 W13	a

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Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: E 48970 BASAURI	**PLANT BASAURI**	**E**	07.07.20 Rev.: 7	3 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
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Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
6	25 CrMo4	EN 10269 1.7218	+QT	BARS	25	100					AD 2000 W 7	a and 3·2 certificate
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	25	100					AD 2000 W 7	a and 3·2 certificate
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	25	100					AD 2000 W 7	a and 3·2 certificate
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	25	60					AD 2000 W 7	a and 3·2 certificate ***
7	X 6CrNiTi 18-10	EN 10272 1.4541	+AT	BARS	25	100					AD 2000 W 2	a
	X 6CrNiMoTi 17-12-2	EN 10272 1.4571	+AT	BARS	25	100					AD 2000 W 2	a
	X 2CrNiMo 17-12-2	EN 10272 1.4404	+AT	BARS	25	100					AD 2000 W 2	a
	X 5CrNi 18-10	EN 10272 1.4301	+AT	BARS	25	100					AD 2000 W 2	a
	X5CrNiMo 17-12-2	EN 10272 1.4401	+AT	BARS	25	100					AD 2000 W 2	a
	X2CrNi18-9	EN 10272 1.4307	+AT	BARS	25	100					AD 2000 W 2	a

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Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: E 48970 BASAURI	**PLANT BASAURI**	**E**	07.07.20 Rev.: 7	4 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm fr	Up	Weight max 1=t / 2=kg ⇓	res	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7	7b	8a	8b	9	10
3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)												
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8	34 CrNiMo 6	EN ISO 683 -2 1.6582	+QT	BARS	25	100					EN ISO 683 -2	a
	25 CrMo4	EN ISO 683 -2 1.7218	+QT	BARS	25	100					EN ISO 683 -2	a
	30CrNiMo8	EN ISO 683-2 1.6580	+QT	BARS	25	100					EN ISO 683 -2	a
	41 Cr4	EN ISO 683-2 1.7035	+QT	BARS	25	100					EN ISO 683 -2	a
	42CrMoS4	EN ISO 683-2 1.7227	+QT	BARS	25	100					EN ISO 683 -2	a
	42 CrMo 4	EN ISO 683 -2 1.7225	+QT	BARS	25	100					EN ISO 683 -2	a
9	B7	ASTM A 193	+QT	BARS	25	100					ASTM A 193	a
	L7	ASTM A 320	+QT	BARS	25	65					ASTM A 320	a + ***
	B16	ASTM A 193	+QT	BARS	25	100					ASTM A 193	a
10	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	25	100					API6A / ISO 10423 [ASTM A 29]	a
11	S 235J2	EN 10025.2 1.0117	+N-AR	BARS	25	100					EN 10025.2	a
	S-235 JR	EN 10025.2 1.0038	+N-AR	BARS	25	100					EN 10025.2	a
	S 275 JR	EN 10025.2 1.0044	+N-AR	BARS	25	100					EN 10025.2	a
	S 275J2	EN 10025.2 1.0145	+N-AR	BARS	25	100					EN 10025.2	a
	S 355 JR	EN 10025.2 1.0045	+N-AR	BARS	25	100					EN 10025.2	a
	S 355 J2	EN 10.025.2 1.0577	+N-AR	BARS	25	100					EN 10025.2	a

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Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: E 48970 BASAURI	**PLANT BASAURI**	**E**	07.07.20 Rev.: 7	5 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Deliver y Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm fr	Up	Weight max 1=t / 2=kg ⇓	res	Technical Specifications Requirements Technical Regulations	Remarks
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12	X 8CrNiS 18-9	EN 10088.3 1.4305	+AT	BARS	25	100					EN 10088.3	a
	X 20 Cr 13	EN 10088.3 1.4021	+AT	BARS	25	100					EN 10083.3	a
	X 20 Cr 13	EN 10088.3 1.4021	+QT	BARS	25	100					EN 10083.3	a and 3·2 certificate
	X 6CrNiMoTi 17-12-2	EN 10088.3 1.4571	+AT	BARS	25	100					EN 10083.3	a
	X 2CrNiMo 17-12-2	EN 10088.3 1.4404	+AT	BARS	25	100					EN 10083.3	a
	X 5CrNi 18-10	EN 10088.3 1.4301	+AT	BARS	25	100					EN 10083.3	a
	X 6CrNiTi 18-10	EN 10088.3 1.4541	+AT	BARS	25	100					EN 10083.3	a
	X5CrNiMo 17-12-2	EN 10088.3 1.4401	+AT	BARS	25	100					EN 10083.3	a
13	304, 304L	ASTM 479 S30400, S30403	+AT	BARS	25	76,2					ASTM 479	a + ***
	316, 316L, 316TI	ASTM 479 S31600 S31603, S31635	+AT	BARS	25	76,2					ASTM 479	a + ***
	309 H	ASTM 479 S 30909	+AT	BARS	25	76,2					ASTM 479	a + *** and 3·2 certificate
	303	ASTM 479 S 30300	+AT	BARS	25	76,2					ASTM 479	a + ***
14	F5	ASTM A 182/ ASME SA 182 K42544	+QT	BARS	25	100					ASTM A 182/ ASME SA 182	a
	F9	ASTM A 182/ ASME SA 182 K90941	+QT	BARS	25	100					ASTM A 182/ ASME SA 182	a
	F11	ASTM A 182/ ASME SA 182 K 11597	+QT	BARS	25	100					ASTM A 182/ ASME SA 182	a and 3·2 certificate
	F91	ASTM A 182/ ASME SA 182 K90901	+QT	BARS	25	100					ASTM A 182/ ASME SA 182	a

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TÜVRheinland®

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: : E 20720 AZKOITIA (GUPUZKOA)	**PLANTA AZKOITIA**	**E**	10.07.20 Rev.: 7	1 of : 4	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Deliver y Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU												
The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
1	X 6CrNiMoTi 17-12-2	EN 10272 1.4571	+AT	BARS	19	200					EN 10272	
	X 2CrNiMo 17-12-2	EN 10272 1.4404	+AT	BARS	19	200					EN 10272	
	X 5CrNi 18-10	EN 10272 1.4301	+AT	BARS	19	200					EN 10272	
2	P 250 GH	EN 10273 1.0460	+N	BARS	19	150					EN 10273	***
	16 Mo 3	EN 10273 1.5415	+QT	BARS	19	150					EN 10273	***
	13 CrMo 44	EN 10273 1.7335	+QT	BARS	19	150					EN 10273	***
	10 CrMo 9-10	EN 10273 1.7380	+QT	BARS	19	150					EN 10273	***
3	25 CrMo4	EN 10269 1.7218	+S,+QT	BARS	19	150					EN 10269	***
	34 CrNiMo 6	EN 10269 1.6582	+QT	BARS	19	100					EN 10269	***
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	19	160					EN 10269	***
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	19	160					EN 10269	***
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	19	65					EN 10269	***

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TÜVRheinland® 00824 Industrial Service

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: : E 20720 AZKOITIA (GUPUZKOA)	**PLANTA AZKOITIA**	**E**	10.07.20 Rev.: 7	2 of : 4	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

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4	S 235J2	EN 10025.2 1.0117	+N	BARS	19	200					AD 2000 W13	a
	S-235 JR	EN 10025.2 1.0038	+N	BARS	19	200					AD 2000 W13	a
	S 275 JR	EN 10025.2 1.0044	+N	BARS	19	200					AD 2000 W13	a
	S 275J2	EN 10025.2 1.0145	+N	BARS	19	200					AD 2000 W13	a
	S 355 J2	EN 10025.2 1.0577	+N	BARS	19	200					AD 2000 W13	a
5	P 250 GH	EN 10273 1.0460	+N	BARS	19	150					AD 2000 W13	***
	P 355 NH	EN 10273 1.0565	+N	BARS	19	150					AD 2000 W13	***
6	25 CrMo4	EN 10269 1.7218	+QT	BARS	19	150					AD 2000 W 7	a and 3·2 certificate ***
	34 CrNiMo 6	EN 10269 1.6582	+QT	BARS	19	100					AD 2000 W 7	a and 3·2 certificate ***
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	19	160					AD 2000 W 7	a and 3·2 certificate ***
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	19	160					AD 2000 W 7	a and 3·2 certificate ***
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	19	65					AD 2000 W 7	a and 3·2 certificate ***

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TÜVRheinland® Industrial Services 85824

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: : E 20720 AZKOITIA (GUPUZKOA)	**PLANTA AZKOITIA**	**E**	10.07.20 Rev.: 7	3 of : 4	TÜV Rheinland Industrie Service GmbH

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7	X 20 Cr 13	EN 10088.3 1.4021	+QT	BARS	19	200					DIN17440	a
9	B7	ASTM A 193	+QT	BARS	19	177,8					ASTM A 193	a + ***
	L7	ASTM A 320	+QT	BARS	19	65					ASTM A 320	a + ***
	B16	ASTM A 193	+QT	BARS	19	200					ASTM A 193	***
10	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	19	200					API6A / ISO 10423 [ASTM A 29]	a
11	S 235J2	EN 10025.2 1.0117	+N,+AR	BARS	19	200					EN 10025.2	a
	S-235 JR	EN 10025.2 1.0038	+N,+AR	BARS	19	200					EN 10025.2	a
	S 275 JR	EN 10025.2 1.0044	+N,+AR	BARS	19	200					EN 10025.2	a
	S 275J2	EN 10025.2 1.0145	+N,+AR	BARS	19	200					EN 10025.2	a
	S 355 JR	EN 10025.2 1.0045	+N,+AR	BARS	19	200					EN 10025.2	a
	S 355 J2	EN 10025.2 1.0577	+N,+AR	BARS	19	200					EN 10.025.2	a
12	34 CrNiMo 6	EN ISO 683.2 1.6582	+QT	BARS	19	200					EN ISO 683-2	a
	25 CrMo4	EN ISO 683.2 1.7218	+QT	BARS	19	160					EN ISO 683-2	a + ***
	30CrNiMo8	EN ISO 683.2 1.6580	+QT	BARS	19	200					EN ISO 683-2	a
	42 CrMo 4	EN ISO 683.2 1.7225	+QT	BARS	19	200					EN ISO 683-2	a
	42CrMoS4	EN ISO 683.2 1.7227	+QT	BARS	19	200					EN ISO 683-2	a
	41 Cr4	EN ISO 683-2 1.7035	+QT	BARS	19	100					EN ISO 683-2	a + *** 3.2 certificate

Remarks

+AT	= solution annealed	+NT	= normalized and tempered	a	= PMA for the use in pressure equipment in Directive 2014/68/EU neccessary
+AR	= as rolled	+QT	= quenched and tempered	***	Over limits will need PMA
+M	= thermo mechanical treated	+S	= soft annealed		
+N	= normalized or normalizing formed	+SR	= stress relieved		

TÜVRheinland®

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: : E 20720 AZKOITIA (GUPUZKOA)	**PLANTA AZKOITIA**	**E**	10.07.20 Rev.: 7	4 of : 4	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Dimensions Thick-ness mm Up to	Dimensions ∅ mm from	Dimensions ∅ mm Up to	Weight max 1=t / 2=kg ⇓	Weight max result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Thick-ness mm from	Thick-ness mm Up to	∅ mm from	∅ mm Up to	Weight max ⇓	Weight max result	Technical Specifications	Remarks
13	F5	ASTM A 182/ ASME SA 182 K42544	+QT	BARS	BARS	19	200					a
	F9	ASTM A 182/ ASME SA 182 K90941	+QT	BARS	BARS	19	200					a
	F11	ASTM A 182/ ASME SA 182 K 11597	+QT	BARS	BARS	19	200					a certificate 3·2
	F91	ASTM A 182/ ASME SA 182 K90901	+QT	BARS	BARS	19	200					a

Remarks

+AT = solution annealed
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+NT = normalized and tempered
+QT = quenched and tempered
+S = soft annealed
+SR = stress relieved
a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary
*** Over limits will need PMA

TÜVRheinland® Industrial Services 85824

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** LocationE 39200 REINOSA (CANTABRIA)	**PLANTA REINOSA**	**E**	10.07.20 Rev.: 7	1 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU												
The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
1	X 6CrNiMoTi 17-12-2	EN 10272 1.4571	+AT	BARS	100	230					EN 10272	
	X 2CrNiMo 17-12-2	EN 10272 .3 1.4404	+AT	BARS	100	230					EN 10272	
	X 5CrNi 18-10	EN 10272 1.4301	+AT	BARS	100	230					EN 10272	
	X 6CrNiTi 18-10	EN 10272 1.4541	+AT	BARS	100	230					EN 10272	
	X 5CrNiMo 17-12-2	EN 10272 1.4401	+AT	BARS	100	230					EN 10272	
	X 2CrNi18-9	EN 10272 1.4307	+AT	BARS	100	230					EN 10272	
	X 8CrNiS 18-9	EN 10272 1.4305	+AT	BARS	100	230					EN 10272	
2	25 CrMo4	EN 10269 1.7218	+S, +QT	BARS	100	150					EN 10269	***
	34 CrNiMo 6	EN 10269 1.6582	+QT	BARS	100	120					EN 10269	***
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	100	160					EN 10269	***
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	100	160					EN 10269	***
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	100	65					EN 10269	***
3	P 250 GH	EN 10273 1.0460	+N	BARS	100	150					EN 10273	***
	16 Mo 3	EN 10273 1.5415	+QT	BARS	100	150					EN 10273	***
	13 CrMo 45	EN 10273 1.7335	+QT	BARS	100	150					EN 10273	***
	10 CrMo 9-10	EN 10273 1.7380	+QT	BARS	100	150					EN 10273	***

Remarks

+AT = solution annealed
+AR = as rolled
+M = thermo mechanical treated
+N = normalized or normalizing formed
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+S = soft annealed
+SR = stress relieved
a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary
*** Over limits will need PMA

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** LocationE 39200 REINOSA (CANTABRIA)	**PLANTA REINOSA**	**E**	10.07.20 Rev.: 7	2 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

4	S 235J2	EN 10025.2 1.0117	+N	BARS	100	230					AD 2000 W13	a
	S-235 JR	EN 10025.2 1.0038	+N	BARS	100	230					AD 2000 W13	a
	S 275 JR	EN 10025.2 1.0044	+N	BARS	100	230					AD 2000 W13	a
	S 275J2	EN 10025.2 1.0145	+N	BARS	100	230					AD 2000 W13	a
	S 355 J2	EN 10025.2 1.0577	+N	BARS	100	230					AD 2000 W13	a
5	P 250 GH	EN 10273 1.0460	+N	BARS	100	150					AD 2000 W13	a + ***
	P 355 NH	EN 10273 1.0565	+N	BARS	100	150					AD 2000 W13	a + ***
6	25 CrMo4	EN 10269 1.7218	+QT	BARS	100	150					AD 2000 W 7	a and 3·2 certificate ***
	34 CrNiMo 6	EN 10269 1.6582	+QT	BARS	100	120					AD 2000 W 7	a and 3·2 certificate ***
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	100	160					AD 2000 W 7	a and 3·2 certificate ***
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	100	160					AD 2000 W 7	a and 3·2 certificate ***
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	100	65					AD 2000 W 7	a and 3·2 certificate ***

Remarks

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Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** LocationE 39200 REINOSA (CANTABRIA)	**PLANTA REINOSA**	**E**	10.07.20 Rev.: 7	3 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

2. Materials according to the AD 2000-Code

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7	X 6CrNiMoTi 17-12-2	EN 10272 1.4571	+AT	BARS	100	230					AD 2000 W 2	a
	X 2CrNiMo 17-12-2	EN 10272 1.4404	+AT	BARS	100	230					AD 2000 W 2	a
	X 5CrNi 18-10	EN 10272 1.4301	+AT	BARS	100	230					AD 2000 W 2	a
	X 6CrNiTi 18-10	EN 10272 1.4541	+AT	BARS	100	230					AD 2000 W 2	a
	X5CrNiMo 17-12-2	EN 10272 1.4401	+AT	BARS	100	230					AD 2000 W 2	a
	X2CrNi18-9	EN 10272 1.4307	+AT	BARS	100	230					AD 2000 W 2	a

Remarks

+AT = solution annealed
+AR = as rolled
+M = thermo mechanical treated
+N = normalized or normalizing formed
+NT = normalized and tempered
+QT = quenched and tempered
+S = soft annealed
+SR = stress relieved
a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** LocationE 39200 REINOSA (CANTABRIA)	**PLANTA REINOSA**	**E**	10.07.20 Rev.: 7	4 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Dimensions Thick-ness mm Up to	Dimensions ∅ mm from	Dimensions ∅ mm Up to	Weight max 1=t / 2=kg ⇓	Weight max result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Thick-ness from	Thick-ness Up to	∅ from	∅ Up to	Weight ⇓	Weight result	Technical Specifications	Remarks
8	B7	ASTM A 193	+QT	BARS	100	177,8					ASTM A 193	***
	L7	ASTM A 320	+QT	BARS	100	65					ASTM A 320	***
	B16	ASTM A 193	+QT	BARS	100	200					ASTM A 193	***
9	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	100	230					API6A / ISO 10423 [ASTM A 29]	**a**
10	S 235J2	EN 10025.2-1.0117	+N+AR	BARS	100	230					EN 10025.2	a
	S-235 JR	EN 10025.2 - 1.0038	+N+AR	BARS	100	230					EN 10025.2	a
	S 275 JR	EN 10025.2 - 1.0044	+N+AR	BARS	100	230					EN 10025.2	a
	S 275J2	EN 10025.2 - 1.0145	+N+AR	BARS	100	230					EN 10025.2	a
	S 355 JR	EN 10025.2 – 1.0045	+N+AR	BARS	100	230					EN 10025.2	a
	S 355 J2	EN 10.025.2 – 1.0577	+N+AR	BARS	100	230					EN 10025.2	a
11	F5	ASTM A 182/ ASME SA 182 K42544	+QT	BARS	100	230					ASTM A 182/ ASME SA 182	a
	F9	ASTM A 182/ ASME SA 182 K90941	+QT	BARS	100	230					ASTM A 182/ ASME SA 182	a
	F11	ASTM A 182/ ASME SA 182 K 11597	+QT	BARS	100	230					ASTM A 182/ ASME SA 182	a 3·2 certificate
	F91	ASTM A 182/ ASME SA 182 K90901	+QT	BARS	100	230					ASTM A 182/ ASME SA 182	a 3·2 certificate

Results

+AT = solution annealed
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+S = soft annealed
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a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary
*** Over limits will need PMA

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** LocationE 39200 REINOSA (CANTABRIA)	**PLANTA REINOSA**	**E**	10.07.20 Rev.: 7	5 of : 5	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Dimensions Thick-ness mm Up to	Dimensions ∅ mm from	Dimensions ∅ mm Up to	Weight max 1=t / 2=kg ⇓	Weight max result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Thick-ness from	Thick-ness Up to	∅ from	∅ Up to	Weight max ⇓	Weight max result	Technical Specifications	Remarks
12	34 CrNiMo 6	EN ISO 683.2 1.6582	+QT	BARS	100	230					EN ISO 683-2	a
	25 CrMo4	EN ISO 683.2 1.7218	+QT	BARS	100	160					EN ISO 683-2	a + ***
	30CrNiMo8	EN ISO 683.2 1.6580	+QT	BARS	100	230					EN ISO 683-2	a
	42 CrMo 4	EN ISO 683.2 1.7225	+QT	BARS	100	230					EN ISO 683-2	a
	42CrMoS4	EN ISO 683.2 1.7227	+QT	BARS	100	230					EN ISO 683-2	a
	41 Cr4	EN ISO 683-2 1.7035	+QT	BARS	100	100					EN ISO 683-2	a + *** 3.2 certificate
13	304, 304L	ASTM 479 S30400, S30403	+AT	BARS	100	76,2					ASTM 479	***
	316, 316L, 316TI	ASTM 479 S31600 S31603, S31635	+AT	BARS	100	76,2					ASTM 479	***
	309 H	ASTM 479 S 30909	+AT	BARS	100	76,2					ASTM 479	***
	303	ASTM 479 S 30300	+AT	BARS	100	76,2					ASTM 479	***
14	X 8CrNiS 18-9	EN 10088.3 1.4305	+AT	BARS	100	160					EN 10088.3	***
	X 20 Cr 13	EN 10088.3 1.4021	+AT	BARS	100	160					EN 10088.3	***
	X 20 Cr 13	EN 10088.3 1.4021	+QT	BARS	100	230					EN 10088.3	a and 3·2 certificate
	X 6CrNiMoTi 17-12-2	EN 10088.3 1.4571	+AT	BARS	100	230					EN 10088.3	a
	X 2CrNiMo 17-12-2	EN 10088.3 1.4404	+AT	BARS	100	230					EN 10088.3	a
	X 5CrNi 18-10	EN 10088.3 1.4301	+AT	BARS	100	230					EN 10088.3	a
	X 6CrNiTi 18-10	EN 10088.3 1.4541	+AT	BARS	100	230					EN 10088.3	a
	X5CrNiMo 17-12-2	EN 10088.3 1.4401	+AT	BARS	100	230					EN 10088.3	a

Results

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*** Over limits will need PMA

TÜVRheinland® Industrial Services 85824

Annex to Certificate No. : 01 202 E/Q-02 6904 02

TÜVRheinland®

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: E 01013 VITORIA (ARABA)	**PLANTA VITORIA**	**E**	10.07.20 Rev.: 7	1 of : 3	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thickness mm from	Up to	∅ mm from	Up to	Weight max 1=t / 2=kg ⇓	result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU												
The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
1	X 6CrNiMoTi 17-12-2	EN 10272 1.4571	+AT	BARS	--	26					EN 10272	
	X 2CrNiMo 17-12-2	EN 10272 1.4404	+AT	BARS	--	26					EN 10272	
	X 5CrNi 18-10	EN 10272 1.4301	+AT	BARS	--	26					EN 10272	
	X 6CrNiTi 18-10	EN 10272 1.4541	+AT	BARS	--	26					EN 10272	
	X5CrNiMo 17-12-2	EN 10272 1.4401	+AT	BARS	--	26					EN 10272	
	X2CrNi18-9	EN 10272 1.4307	+AT	BARS	--	26					EN 10272	
1	25 CrMo4	EN 10269 1.7218	+S, +QT	BARS	--	26					EN 10269	
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	--	26					EN 10269	
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	--	26					EN 10269	
	34 CrNiMo 6	EN 10269 1.6582	+QT	BARS	--	26					EN 10269	
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	--	26					EN 10269	
3	P 250 GH	EN 10273 - 1.0460	+N	BARS	--	26					EN 10273	
	16 Mo 3	EN 10273 1.5415	+QT	BARS	--	26					EN 10273	
	13 CrMo 44	EN 10273 1.7335	+QT	BARS	--	26					EN 10273	
	10 CrMo 9-10	EN 10273 1.7380	+QT	BARS	--	26					EN 10273	

Remarks

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Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: E 01013 VITORIA (ARABA)	**PLANTA VITORIA**	**E**	10.07.20 Rev.: 7	2 of : 3	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thickness mm from	Dimensions Thickness mm Up to	Dimensions ∅ mm from	Dimensions ∅ mm Up to	Weight max 1=t / 2=kg ⇓	Weight max result	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Thickness mm from	Thickness mm Up to	∅ mm from	∅ mm Up to	Weight max ⇓	Weight max result	Technical Specifications	Remarks
4	S 235J2	EN 10025.2 1.0117	+N	BARS	--	26					AD 2000 W13	a
	S-235 JR	EN 10025.2 1.0038	+N	BARS	--	26					AD 2000 W13	a
	S 275 JR	EN 10025.2 1.0044	+N	BARS	--	26					AD 2000 W13	a
	S 275J2	EN 10025.2 1.0145	+N	BARS	--	26					AD 2000 W13	a
	S 355 J2	EN 10.025.2 1.0577	+N	BARS	--	26					AD 2000 W13	a
5	P 250 GH	EN 10273 - 1.0460	+N	BARS	--	26					AD 2000 W13	a
	P 355 NH	EN 10273 1.0565	+N	BARS	--	26					AD 2000 W13	a
6	25 CrMo4	EN 10269 1.7218	+QT	BARS	--	26					AD 2000 W 7	a and 3·2 certificate
	21 CrMoV 5.7	EN 10269 1.7709	+QT	BARS	--	26					AD 2000 W 7	a and 3·2 certificate
	42 CrMo 4	EN 10269 1.7225	+QT	BARS	--	26					AD 2000 W 7	a and 3·2 certificate
	40CrMoV4.6	EN 10269 1.7711	+QT	BARS	--	26					AD 2000 W 7	a and 3·2 certificate

Remarks

+AT = solution annealed
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+SR = stress relieved
a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary

Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: **SIDENOR ACEROS ESPECIALES, S.L.U.** Location: E 01013 VITORIA (ARABA)	**PLANTA VITORIA**	**E**	10.07.20 Rev.: 7	3 of :3	TÜV Rheinland Industrie Service GmbH

Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from	Dimensions Thick-ness mm Up to	Dimensions ∅ mm from	Dimensions ∅ mm Up to	Weight max 1=t / 2=kg ⇓	Weight max 1=t / 2=kg r	Technical Specifications Requirements Technical Regulations	Remarks
1	2	3	4	5	6a	6b	7a	7b	8	8	9	10
3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)												
The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
7	34 CrNiMo 6	EN ISO 683-2 1.6582	+QT	BARS	--	26					EN ISO 683-2	a
	25 CrMo4	EN ISO 683-2 1.7218	+QT	BARS	--	26					EN ISO 683-2	a
	42 CrMo 4	EN ISO 683-2 1.7225	+QT	BARS	--	26					EN ISO 683-2	a
	41 Cr4	EN ISO 683-2 1.7035	+QT	BARS	--	26					EN ISO 683-2	a
	42CrMoS4	EN ISO 683-2 1.7227	+QT	BARS	--	26					EN ISO 683-2	a
8	X 20 Cr 13	EN 10088.3 1.4021	+QT	BARS	--	26					EN 10088.3	a
9	B7	ASTM A 193	+QT	BARS	--	26					ASTM A 193	a
	L7	ASTM A 320	+QT	BARS	--	26					ASTM A 320	a
	B16	ASTM A 193	+QT	BARS	--	26					ASTM A 193	a
10	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	--	26					API6A / ISO 10423 [ASTM A 29]	a
11	S 235J2	EN 10025.2-1.0117	N-AR	BARS	--	26					EN 10025.2	a
	S-235 JR	EN 10025.2 - 1.0038	N-AR	BARS	--	26					EN 10025.2	a
	S 275 JR	EN 10025.2 - 1.0044	N-AR	BARS	--	26					EN 10025.2	a
	S 275J2	EN 10025.2 - 1.0145	N-AR	BARS	--	26					EN 10025.2	a
	S 355 JR	EN 10025.2 – 1.0045	N-AR	BARS	--	26					EN 10025.2	a
	S 355 J2	EN 10.025.2 – 1.0577	N-AR	BARS	--	26					EN 10025.2	a

Remarks

+AT = solution annealed
+AR = as rolled
+M = thermo mechanical treated
+N = normalized or normalizing formed
+NT = normalized and tempered
+QT = quenched and tempered
+S = soft annealed
+SR = stress relieved
a = PMA for the use in pressure equipment in Directive 2014/68/EU neccessary

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